

**SOUTH-DELTA FISH FACILITIES FORUM
CO-CHAIR'S REPORT¹:
SOME POLICY CONCLUSIONS
April 20, 2005**

Preamble

The South Delta Fish Facilities Forum (Forum) was created in 2002 by CALFED to address questions regarding investments in fish screens in the South Delta as part of the CALFED Bay-Delta Program. The CALFED Record of Decision (ROD) directs the design and construction of new fish screens at the Clifton Court Forebay (CCF) and Tracy pumping plant to allow export facilities to pump at full capacity more often. A subsequent agreement between the state Department of Water Resources, Department of Fish and Game, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, NOAA Fisheries, and CALFED Bay-Delta Program recommends a “modular” approach to South Delta fish screens intended to afford maximum protection to fisheries in the Delta. However, the costs of this approach could be as high as \$1.7 billion. Because of concerns about the costs and effectiveness of such a strategy, the Forum has engaged in a participative process with stakeholders and outside experts to explore the ROD strategy as well as alternatives. The charge of the Forum is to make recommendations to the California Bay-Delta Authority and the state and federal agencies regarding the best direction in the future for pursuing investments in fish screens in the South Delta. The Forum Co-Chairs agree that this charge must be fulfilled in a manner consistent with ensuring maximum benefits for fish populations and habitat given available resources and, accordingly, that cost-effectiveness and binding assurances should be a central consideration in guiding future investment decisions. This white paper summarizes the conclusions of the Co-Chairs based on nearly two years of public meetings. Written comments received from Forum members on this final Report are attached.

Overview of Conclusions

The Co-Chairs believe that investment decisions to protect and restore fish populations, including fish screens in the south Delta, should be guided by the overall goal of achieving existing federal and state population targets by using available financial resources in the most cost effective manner possible. Based on considerable dialogue and public input through the Forum process, we believe that the best strategy involves implementing immediate actions to remedy known facility deficiencies, completing investigations on alternative facility and operational strategies to assess future options, and developing a long term facility strategy in

¹ **South Delta Fish Facilities Co-Chairs**

Perry Herrgesell, Chief, Central Valley Bay Delta Branch , California Department of fish and Game
John Davis, Deputy Regional Director, Mid-Pacific Region, U.S. Dept of Interior, Bureau of Reclamation
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Contributors to the Co-Chairs Report

Kathy Kelly, Chief, Bay-Delta Office, California Department of Water Resources
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the context of implementing other actions that can achieve functionally equivalent estuary and fisheries benefits. This long-term strategy must be developed with agency and stakeholder involvement to ensure that it is both scientifically sound and backed with binding assurances. Based on available information, other alternatives exist that will be significantly more productive and cost-effective in meeting fishery objectives than the modular approach. However, pending the development and effective implementation of such alternatives, as determined through a sound monitoring and evaluation process, the Co-Chairs are not eliminating the possibility that future facility actions might include the modular screening approach.

Once developed, this strategy will be included in the appropriate CALFED program plans (Conveyance, Ecosystem Restoration, and Science programs) and integrated into the Environmental Water Account. Financing these assurances through CALFED's 10-Year Finance Plan must also be ensured before any alternatives are dropped from consideration.

Conclusions

- 1) **Phased Decision-Making:** Decisions about South Delta fish screens should be phased with earlier investments. Phased decision-making may provide incremental gains at modest cost.
- 2) **Science:** Additional science is necessary to support investment decisions in fish facilities, particularly regarding some significant issues related to long-term decisions. Focused and tactical investigations should be encouraged to address tradeoffs and action benefits. Focused investigations such as the proposed South Delta Hydrodynamic and Fisheries Investigations, and the Collection, Handling, Transportation, and Release (CHTR) studies outlined below are such examples. However, waiting for answers to these larger questions should not delay near-term actions to improve protections for fisheries in the South Delta. The Co-Chairs recognize that some long-term decisions may be based on the best available science at the time a decision is needed.
- 3) **Assurances:** Any portfolio of investments to protect and restore fisheries should be subject to binding commitments among the resource agencies, project operators, and interested parties to assure financing and effective implementation. These investments should be crafted to meet the restoration targets for Delta species identified in the Ecosystem Restoration Plan's Multi-Species Conservation Strategy (MSCS). Since these assurances and actions will involve commitments, participation, and cooperation of other CALFED programs and interest groups, the Co-Chairs propose that the CALFED agencies develop a thorough and transparent public process that addresses functionally equivalent actions and assurances. The Co-Chairs believe that functionally equivalent alternatives to major new screening facilities should be investigated for cost effectiveness of fisheries benefits. A comparative analysis between facility options and alternative operational strategies and additional habitat investments should be conducted. If there are more cost-effective strategies that can increase fish populations than the South Delta modular screening alternatives, they

should be pursued. However, absent firm commitments to actually implement alternative strategies to protect and restore fish populations of concern with quantifiable improvements, the regulatory agencies must retain their commitment to the actions identified in the ROD and the state and federal endangered species acts and act in accordance to their public trust responsibilities.

- 4) **Adequate Funding:** Actions identified in any assurance agreement must be contingent on the availability of adequate funding to implement the alternative, including its monitoring and evaluation. The Co-Chairs recommend that such funding with firm commitments from public, water user, and other sources consistent with the beneficiaries-pay principle be included in the 10 year finance plan now under development by the CBDA. The 10-Year Finance Plan should also protect funds in Propositions 13 and 50 intended to improve fish facilities in the South Delta for that purpose.
- 5) **Immediate Actions:** The Co-Chairs strongly recommend that all necessary actions be taken to improve the function of the existing SWP and CVP fish facilities in the South Delta to assure effective fish protection despite changing Delta conditions. To improve fish protection relative to current conditions the fish facilities should be modified and/or operated to achieve to the maximum practical extent the original performance objectives required for the louver facilities. The SWP and CVP operators will seek regulatory agency review and approval for proposed modifications and changes in operations. Immediate facility actions include those identified in the Operations Criteria and Plan (OCAP) and its associated Biological Opinions, as well as those mandated through the Central Valley Project Improvement Act (CVPIA). Immediate actions also include initiating feasibility studies and continuing facility research activities that will assist in determining the feasibility and cost effectiveness of future actions and modifications.

Fish facility actions should be evaluated as they are implemented to assess fish protection improvements. This information, as well as results from the proposed feasibility investigations listed below, will be analyzed by the implementing and regulatory agencies to determine long-term cost effective strategies.

Improvement actions will be the responsibility of the implementing agencies. Schedules and budgets for action items will be integrated into the appropriate CALFED Program Plans consistent with the 10-Year Finance Plan. Immediate actions, some of which are ongoing, should include but are not limited to the following:

- Conducting a feasibility study to develop an approach to reduce predation losses in CCF. This study will examine the hydraulic and facility impacts of alternatives that reconfigure flows to the Skinner Fish Facility with the intent to reduce CCF predation losses. A predator study plan will be developed around technically feasible alternatives to investigate potential improvements in fish survival. The Co-Chairs agree that proposals to “bypass” CCF and

screen water at the existing screening facilities at the Banks pumping plant before the water enters the CCF, essentially converting the forebay into an afterbay, have considerable merit.

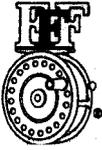
- Improving debris-handling operations at the existing facilities to improve both fish protection and operational efficiency. Specific actions include providing automated cleaning systems for the SWP and CVP trash racks, cleaning systems for the CVP's primary and secondary louver cleaning systems, and substantially reducing the debris that enters the fish trucks. New systems should minimize or eliminate salvage operation disruptions, including constructing redundant channels or holding systems if necessary. A phased improvement to the CVP's bypass and holding system, described below, is another immediate action that will reduce debris impacts.
 - Completing the CHTR studies to identify facility or operational actions that will increase survival of delta smelt during collection, handling, transportation, and release. Recommendations on implementing these actions will be considered as information is available or upon study completion (2006).
 - Completing the proposed South Delta hydrodynamics, water quality, and fish movement studies to identify better operational strategies that minimize fish entrainment at the export facilities. These studies will also be used to investigate future operations and facilities related to possible CCF reconfigurations.
 - Phasing-in replacement of the CVP secondary louvers and fish holding facility to improve fish collection efficiency and protection by increasing bypass flows, improving debris management, and improving operational efficiency. This new system would connect the existing bypass pipes to "fish friendly" pumps (to provide higher bypass flows) and connect them to above-ground holding tanks. Lower bypass flows and low water levels have been identified as some of the major hydraulic deficiencies that impact fish collection efficiency. In addition, the above-ground holding tanks can reduce the debris impacts that cause fish injury and mortality in the CHTR process. Implementing these facility changes at the SWP facility may be considered after experience with this system.
 - Improving water weed control measures for CCF.
 - Reviewing and implementing, as appropriate, operations at the state and federal fish facilities to improve, as necessary, staffing, equipment and standard operating procedures.
- 6) **Long-Term Investments:** Long-term investment decisions should be consistent with CALFED Bay-Delta Program principles. Specifically, the basis for comparing facility actions with other actions should focus on its contribution to protecting Delta species as identified in the ERP's MSCS. Investments will be based on adaptive decision making strategies, progress on actions that meet fish population target objectives,

evaluations of alternative facility investigations as described above and best available science. The Co-Chairs believe that the following considerations should guide long-term investment strategies in the South Delta:

- The modular screening strategy should not be pursued so long as a cost-effective alternative that provides increased abundance in fish populations and supporting habitat is adequately financed and its implementation is assured.
- Fish facility criteria should not be driven by delta smelt considerations but instead on cost effectiveness considerations so long as the alternative strategy meets the MSCS objectives for Delta species. Tradeoffs between South Delta screen costs and operational modifications and habitat investments elsewhere should be evaluated in the analysis.
- Operational strategies to protect and restore delta smelt are likely to be more productive and cost effective than large expenditures on South Delta screens. The Co-Chairs recommend that the CALFED Agencies develop specific operational strategies with comparable lifecycle cost estimates to determine functionally equivalent actions and assurances for protecting delta smelt.
- Long-term assurance agreements should be developed with agency and stakeholder input in a public process. Specific action items resulting from these assurances should be adopted in the CALFED 10-Year Finance Plan, and incorporated into the program plans of the Conveyance, Ecosystem Restoration, and Science programs and the Environmental Water Account.

Comments

Written comments from Forum members on this final report were received from the Federation of Fly Fishers, the DeltaKeeper, and the California Sportfishing Protection Alliance. Their comment letters are included in the pages that follow.



FEDERATION OF FLY FISHERS''
Conserving • Restoring • Educating Through Fly Fishing
Northern California Council

29 April 2005

Ron Ott
Delta Regional Coordinator
California Bay-Delta Authority
650 Capitol Mall, 5th Floor
Sacramento CA 95814

**Comments Regarding the Co-Chairs Report Dated 20 April 2005
Regarding the South Delta Fish Facilities Forum**

Dear Mr. Ott:

We offer the following comments on the subject report:

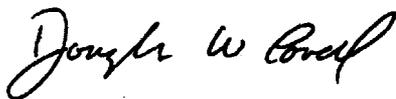
- **The co-chairs' report is not a consensus** of the stakeholders nor of the forum participants. In particular, many stakeholders and participants believe, based on the information currently available, that the originally-envisioned (CalFed Programmatic ROD) improvements to the South Delta fish facilities will provide reliable, durable, cost-effective, and affordable benefits to resident and anadromous Bay-Delta fisheries. Accordingly, (1) environmental and engineering studies and designs should continue in anticipation of implementing modular screens, and (2) the Calfed finance plan should budget for such expenditures.
- State-of-the-art fish **screens** at the South Delta fish facilities **will cost approximately 2-13% of the value of the diverted water**, amortized over a period of 30 years, depending on which screening criteria are employed, whether the pumping rate at Banks is increased to 8500 cfs, and depending on the amount of contingency that is added to the best engineering cost estimates. The co-chairs have revealed an unfortunate bias regarding this important and complex issue by citing only the high end of the cost range for the most extreme screening criteria (1.7 billion dollars), without providing a context for the cost. To paraphrase Ryan Broderick in a statement made to me when he was Director of Conservation Policy for California Ducks Unlimited, "that's simply the cost of diverting water." We agree with Mr. Broderick's sentiment that the water users should directly pay for upgrading the South Delta fish facilities.

- The co-chairs report ignores the disparity between (1) current screening policy and practice throughout the Delta (and upstream of the Delta) (for example, as part of the Los Vaqueros project, AFRP, etc.) and (2) screening considered acceptable for Banks and Tracy. **Why is it that all recent major water diversion projects and all screening upgrades must have state-of-the-art screens except SWP and CVP?** The co-chairs have chosen not to address the consistent application of law, regulation, and policy with respect to screening water diversions.
- The co-chairs report assumes that, instead of state-of-the-art screens, other actions can be taken that will provide equal or more effective benefits to fish (compared to state-of-the-art screens). The co-chairs have chosen not to discuss the recent, dramatic, confirmed monitoring results that show a crash of the Delta fishery and ecosystem. **We have much less confidence that alternative actions will, in fact, be equally effective** given the South Delta water diversions (existing and planned). **We have even less confidence that this notion of equivalency can be accurately and equitably established.**

We understand our comments will be circulated as an attachment to the subject report.

Sincerely,

Northern California Council, Federation of Fly Fishers



Douglas W. Lovell
Chairman, Bay-Delta Committee

Reply to Federation of Fly Fishers
 Northern California Council
 PO Box 8330
 Berkeley CA 94707

April 29, 2005

*South Delta Fish Facilities Forum
Co-Chairs Report:
Some Policy Conclusions
(Dated April 20, 2005)*

*Deltakeeper Comments
prepared by Dan B. Odenweller*

We concur with the recommendation to discontinue the South Delta Fish Facilities Forum (SDFFF Forum), but only with a clear statement of where the public forum for the issues is to be shifted. Major issues currently incomplete include:

- South Delta Fish Facilities, as required by the Co-Chairs Report (until we are ready to let go of that strut),
- Adult equivalent modeling, which provides the functional equivalency information, to allow us let go of the SDFFF (the strut),
- South Delta Improvement Project, including recirculation (local and San Joaquin River,
- Frank's Tract, and the Through Delta Facility,
- Actions to bring existing SDFFF's up to designed capabilities, including the Tracy Fish Test Facility (to provide for research to optimize the existing screens), and work on Clifton Court Forebay,
- Collection, Handling, Transportation, & Release Studies, and
- South Delta Hydrodynamics and Fishery Studies.

We expect a clear and public dissemination of the forum for each of the topics.

We offer the following comments on the "Co-Chairs Report:"

- First paragraph – While the cost of the SDFFF construction is clearly stated, the second factor "effectiveness," has been repeatedly cited without supporting data. Do the Co-Chairs have access to data, to support these statements? We are unaware of any such data, and made the same comment (and question) in our review of the draft document, in December 2004.
- Second paragraph – "**Overview of Conclusions**" – Same comment regarding the "*significantly more productive and cost-effective*" language. We are unaware of any information that would form the basis for such a long-

reaching conclusion, but will reserve judgement until such information is made available to the public.

- We continue to be concerned over the lack of information, which has been the beneficiary of stakeholder review, adequate to support the NEPA and CEQA compliance requirements for project permitting. We believe it would be better to make this information available sooner, rather than later.
- **“Conclusions – 3) Assurances”** – We have previously asked for examples of the assurances being planned. We remind the participants that neither the “Delta Accord,” nor the “CalFed Record of Decision,” were adequate to meet the assurance that we would “all get better together.” We are engaged in this effort because previous assurances were unilaterally overturned, apparently with no basis for the effectiveness statements.
- **“Conclusions – 4) Adequate Funding”** – We strongly insist that the intent of the last sentence be clear. The funding must only be used for the purposes defined in the Bond Acts (Proposition 13 and 50).
- **“Conclusions – 5) Immediate Actions”** – We continue to ask for a better definition of the statement “*to achieve to the maximum practical extent.*” We insist that this concept include both the fish screen protective criteria (the clear intent of the water project staff), and the planned exports through the Tracy (CVP) and Banks (SWP) pumping plants. The burden of inadequate fish protective facilities should not be borne solely by the fish.
- **“Conclusions – 6) Long-Term Investments”** – The last sentence of the first paragraph, and the four supporting bulleted items represent the opinion of the Co-Chairs. They are not supported by any factual information that we have been able to review, and were acknowledged as such during the review at the April 20, 2005 meeting of the SDFP Forum. The fact that the Delta Smelt indices of population abundance are at their lowest levels since they were listed under the Endangered Species Act, does not appear to support the statement in the third bullet. In fact, it is hard to understand how one could make such a statement, given the current Delta Smelt situation.

Given the current situation, our answer to Dr. Herrgesell’s question is yes, we would build new fish screens in the South Delta, following the modular screening strategy. We remind everyone of the success story on Butte Creek with Spring Run Chinook Salmon (SRCS), described by Tim Quinn (Co-Chair, MWD).

We wish to point out that the numbers used to define the success of the venture come from juvenile SRCS trapped at the Parrot-Phelan fish screen (built by the Department of Fish and Game). These fish did not get to “fertilize the rice fields in the area,” were marked with plain old Coded Wire Tags by the Department of Fish and Game, and

returned to Butte Creek. The results are allowing us to define the success of this program, which includes:

- A - Four new fish screens on Butte Creek, and one new fish screen on the Sacramento River,
- B - Butte Creek instream flow agreements,
- C - several barrier removals or improvements, and
- D - a number of habitat restoration actions.

Without this data, collected at a fish screen, we would be in the same boat with the rest of the many “Ecosystem Restoration Projects,” unable to account for the production of the project.

We note that Butte Creek was able to withstand a substantial thermal fish kill two years ago, and still had enough adult escapement to saturate the available spawning habitat. This example of “compensation” helps explain why a population develops such a survival mechanism.

Imagine the consequences if all of the excess production had been allotted to the water users, for example, by continuing to pump through the “red light” at the South Delta facilities (as was done for Winter Run Chinook Salmon in 2001). What might our record of success look like then?



California Sportfishing Protection Alliance

1360 Neilson Street / Berkeley / CA 94702 / 510.526.4049

"Conserving California's Fisheries"

May 5, 2005

SDFFF Co-Chairs
C/O Ron Ott & Darryl Hayes
California Bay-Delta Authority
650 Capitol Mall
Sacramento, CA 95814

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**Re: South Delta Fish Facilities Forum Co-Chairs Report:
Some Policy Conclusions, April 20, 2005**

Dear Co-Chairs, Herrgesell, Rodgers, & Quinn:

We appreciate your efforts to bring the SDFFF process to closure. We found a good deal of your Policy Conclusions of value and appreciate the difficulties involved. On behalf of our constituency, we would like to offer the following for your consideration:

Decision Making: We are concerned regarding the equity of the process whereby you arrived at your "Policy Conclusions". This is emphasized by the extent of the divergent opinion held by Forum participants regarding some of your "Policy Conclusions". Since our organization was not able to participate in the entire SDFFF process, we must have missed the protocols used to establish how the Forum would move from discussion to decision making. To our knowledge, arriving at a consensus among Forum participants was not accomplished so we are uncertain exactly how the "Policy Conclusions" were decided. It is clear that the triumvirate has found some consensus, but we hope the current policy document is not represented to the CBDA as one which had "Forum concurrence".

Fishery Goals: We do not concur with the fishery goals as you have defined them, i.e., from page 1, "... decisions to protect and restore fish populations, including fish screens in the south Delta, should be guided by the overall goal of achieving existing federal and state population targets ..." and, from page 2, 'Assurances', "...These investments should be crafted to meet the restoration targets for Delta species identified in the Ecosystem Restoration Plan's Multi-Species Conservation Strategy (MSCS) ...

As we noted on page 2 of our previous comments under 'Species to be Benefitted',

"The alternatives to the modular fish screens seems to have been conceptually limited to only those fish for which federal and state population targets have been designated, which in our view is inappropriately limiting. We urge that the population targets established in the federal Central Valley Project Improvement Act to double all anadromous fish species in the estuary be incorporated into the objectives of this policy, while specific recovery goals for fisheries protected under the ESA be given an initial priority. The state and federal water projects have an obligation to protect all of the public's fishery resources that they impact. We believe these fishery resources should be included and alternatives developed for them if they would have benefitted from the modular screens, since this screening objective was originally intended to mitigate for impacts caused by the water projects".

Because these arguments seem not to have changed your opinion on this subject, we offer the following.

State and Federal laws place a fiduciary responsibility on public agencies in general and on your agencies in particular to protect public fishery resources even if they were omitted from the Multi-Species Conservation Strategy (MSCS). We have been advised that there are many species of fish not listed under this document that reside in or depend upon the estuary for their survival. Perhaps most notable among these are striped bass, white sturgeon and American shad, all prominent species avidly sought by recreational anglers and fisheries that have been significantly impacted by the water projects.

Given the requirements of NEPA and CEQA, and other state and federal law, we do not believe extending management benefits only to those species identified in the MSCS complies with laws designed to protect the environment and public fishery resources. Nor does it comport with state law that requires the California Department of Fish and Game to honor its "..... jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. The department, as trustee for the fish and wildlife resources, shall consult with lead and responsible agencies and shall provide biological expertise to review and comment upon environmental documents and impacts arising from project activities, (Section 1802 of the California Fish and Game Code).

In our previous comments we mentioned we understood the value of giving management priority to ESA listed species. That said, we also urged you broaden your definition of fishery resources to include all those that are and will continue to be affected by the operations of the state and federal water projects.

All of the public's fishery resources that utilize the estuary and its tributaries must be prudently managed in the best public interest. We urge you to make changes in your Policy Conclusions such that you acknowledge and support the need to properly manage and protect all of the public's fishery resources that are affected by the state and federal water projects.

Equivalent In-Estuary Benefits: In our previous comments, under "Equivalent In-Estuary Benefits", we offered that any alternative projects to modular fish screens should include actions that will provide equivalent protection in the estuary through verifiable improvement in estuary's fishery habitat and its fishery populations. We offered this precisely because improved fish screens were required under the Record of Decision for the CALFED Program's environmental documents. Such screens would provide increase protection from the current diversions and, theoretically, from impacts associated from increased diversions. Equivalent in-estuary benefits are a critically needed to ensure all of the species that would have benefitted from new modular fish screens will also benefit from non-screening alternatives. Unfortunately, your Policy Conclusions do not deal with this issue and we believe they should.

Assurances: We also requested that your Policies assure the alternative projects would provide functional equivalent benefits to the estuary's fisheries include the following elements that should be considered fundamental assurance requirements.

- If the alternative actions provide the benefits anticipated by the co-chairs, then they should be memorialized as an element of the estuary's environmental baseline line just as the screens would have been under the ROD.
- ~~Should~~ the level of protection envisioned by the alternative actions not be realized, then assurances are necessary to require the state and federal projects to curtail exports sufficient to provide the promised level of benefits to all of the estuary's fisheries. A procedure will need to be incorporated into CALFED processes to trigger the implementation of immediate export reductions to protect the estuary's fisheries until corrections can be made to deliver the promised benefits through other actions.
- Assurances should be mandated in the CALFED 10 Year Finance Plan to provide top priority funding to implement the agreed on alternative actions. Should any of this funding not be provided in time to implement scheduled actions, reductions in exports will need to be made to offset the increased entrainment losses that would result.

Page 4, CSPA Policy Conclusion Comments

- Should any of the alternative projects not be funded or delivered on time as intended and agreed to by various agencies, then contingency actions to offset entrainment losses to the equivalent level of protection the modular screens would have provided will need to be expeditiously implemented.

Since most of your "Policy Conclusions" were apparently intentionally broad in scope and general in nature, we are not sure our concerns as outlined above regarding assurances will be appropriately addressed by the group that will consider functional equivalency. It is of utmost importance that these elements be included and we urge you to amend your conclusions to include them.

Finally, to save time and resources, instead of reiterating the valuable comments of the Deltakeeper organization on your Policy Conclusions, we would like to take this opportunity to go on record urging the issues they have raised be properly dealt with as well.

Sincerely,


John Beuttler
Conservation Director